

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: April 1, 2011
Electronic Signature for Sandra Szela Congdon: /Sandra Szela Congdon/

No.: 2004P87070WOUS
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Joseph E. Zuback

Application No.: 10/599,350

Confirmation No.: 7252

Filed: March 24, 2005

Art Unit: 1774

For: PROCESS AND APPARATUS FOR
PURIFYING IMPURE WATER USING
MICROFILTRATION OR
ULTRAFILTRATION IN COMBINATION
WITH REVERSE OSMOSIS

Examiner: D.R. Anderson

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

PART I: Compliance with 37 C.F.R. §1.97

This Information Disclosure Statement is filed before the mailing date of a first Office Action after the filing of a Request for Continued Examination under 37 CFR 1.114 (37 CFR 1.97(b)(4)).

PART II: Information Cited

In accordance with 37 CFR 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits here with copies of foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2).

PART III: Explanation of Non-English Language References and Remarks Concerning Other Information Cited

The following is a concise explanation of the relevance of each non-English language reference listed on the attached form PTO-1449 (modified):

CN1050770C appears to be directed to selective clogging of failed fibers. An English Abstract is enclosed.

CN1249698 appears to be directed to predicting logarithmic reduction values for a membrane filtration system. An English Abstract is enclosed.

CN1541757 appears to be directed to an E-Fenton oxidation technique of dirty blocking agent in reverse osmosis concentrating liquid. An English Abstract is enclosed.

CN2204898Y appears to be directed to a proportional flow controlling valve. An English Abstract is enclosed.

CN2236049Y appears to be directed to a three-way stop valve. An English Abstract is enclosed.

DE10209170 appears to be directed to mechanically cleaning hollow fiber membranes comprising forming hollow fibers into bundles, vertically joining together on their opposite-lying ends, and grasping in the center to set at angle. An English Abstract is enclosed.

DE29804927 appears to be directed to an apparatus for separating liquid media containing impurities. An English Abstract is enclosed.

DE29906389 appears to be directed to a multilevel textilen building material. An English Abstract is enclosed.

DE3904544 appears to be directed to polymer membranes on the basis of polyvinylidene fluoride, a process for the production thereof and their use. An English Abstract is enclosed.

DE4113420 appears to be directed to hollow polyacrylonitrile fibres, useful for membrane process, manufactured by dry-wet or wet spinning from special spinning solutions containing PAN and non-solvent etc., with simultaneous extrusion of core fluid. An English Abstract is enclosed.

DE4117281 appears to be directed to a hydrophylized microporous polytetrafluorethylene membrane and production process thereof. An English Abstract is enclosed.

DE4117422 appears to be directed to monitoring contamination levels of a filter, particularly for hydraulic fluids – in which a signal is produced which correlates with a quotient of two pressure differences, and evaluating device produces signal to change filter when quotient reaches given value. An English Abstract is enclosed.

EP0126714 appears to be directed to a method and apparatus for the treatment of solutions by reverse osmosis. An English Abstract is enclosed.

EP1349644B1 appears to be directed to modified membranes. An English translation is enclosed.

EP0250337 appears to be directed to semi-permeable hydrophilic polyvinylidene fluoride membranes suited for drying. An English Abstract is enclosed.

EP0327025 appears to be directed to a porous membrane filter having fluid impermeable places and their use. An English Abstract is enclosed.

EP407900 appears to be directed to a flat or capillary membrane manufactured from a mixture of polyvinylidene fluoride and a second by chemical reaction hydrophilable polymer. An English Abstract is enclosed.

EP0463627 appears to be directed to hydrophylized microporous polytetrafluorethylene membrane and production process thereof. An English Abstract is enclosed.

EP848194 appears to be directed to a three-way valve. An English Abstract is enclosed.

FR2620712 appears to be directed to hydrophilic block copolymers of vinylidene fluoride and of N-alkylacrylamides and process for their production. An English Abstract is enclosed.

FR2674448 appears to be directed to a process for cleaning mesoporous tubular ultrafiltration membranes. An English Abstract is enclosed.

FR2699424 appears to be directed to a hollow fibre filter module using moulded resin discs. An English Abstract is enclosed.

FR2762834 appears to be directed to batch biological treatment of winery effluents. An English Abstract is enclosed.

JP01-307409 appears to be directed to a device for automatically detecting leak in hollow yarn ultrafiltration membrane module and giving alarm. An English Abstract is enclosed.

JP01-151906 appears to be directed to production of a hollow yarn membrane module cartridge. An English Abstract is enclosed.

JP02017924 appears to be directed to a method for backwashing a hollow yarn membrane filter apparatus. An English Abstract is enclosed.

JP02-026625 appears to be directed to a back washing method of a hollow fiber membrane filter. An English Abstract is enclosed.

JP02-031200 appears to be directed to a backwash method of a hollow-string film filter. An English Abstract is enclosed.

JP02-040296 appears to be directed to an apparatus and method for treating waste water. An English Abstract is enclosed.

JP02-107318 appears to be directed to a membrane module of hollow fiber type. An English Abstract is enclosed.

JP02-126922 appears to be directed to a back washing method of separating a membrane. An English Abstract is enclosed.

JP02-144132 appears to be directed to a porous polyolefin film. An English Abstract is enclosed.

JP02-164423 appears to be directed to a method for washing a hollow fiber membrane filter. An English Abstract is enclosed.

JP H02-174918 appears to be directed to a membrane module type water treating device. An English Abstract is enclosed.

JP02-241523 appears to be directed to a hollow yarn membrane module. An English Abstract is enclosed.

JP02-277528 appears to be directed to a backwash device of a filter having a hollow fiber membrane. An English Abstract is enclosed.

JP02-284035 appears to be directed to a leak test method for hydrophobic hollow yarn type porous membranes. An English Abstract is enclosed.

JP03-018373 appears to be directed to a method and device for detecting leak of a hollow fiber membrane type liquid processor. An English Abstract is enclosed.

JP03-028797 appears to be directed to a method for removing suspensible impurity of condensate by a mixed end type condensate desalting device. An English Abstract is enclosed.

JP03-110445 appears to be directed to a completeness testing method. An English Abstract is enclosed.

JP04-108518 appears to be directed to a water treatment installation having a tangential filtration loop. An English Abstract is enclosed.

JP04-110023 appears to be directed to a method for scrubbing a filtration tower using a hollow-fiber membrane. An English Abstract is enclosed.

JP04-187224 appears to be directed to production of a fluorine-based porous hollow yarn membrane. An English Abstract is enclosed.

JP04-250898 appears to be directed to a batch-wise waste water treating device. A certified English translation is enclosed.

JP04-256424 appears to be directed to a hollow fiber membrane module. An English Abstract is enclosed.

JP04-265128 appears to be directed to membrane separation equipment. An English translation is enclosed.

JP04-293527 appears to be directed to a hollow fiber type membrane module and production thereof. An English Abstract is enclosed.

JP04-310223 appears to be directed to a polyfluorovinylidene resin membrane and method for production thereof. An English Abstract is enclosed.

JP04-317793 appears to be directed to a water treatment apparatus. An English Abstract is enclosed.

JP04-334530 appears to be directed to a filter apparatus. An English Abstract is enclosed.

JP04-348252 appears to be directed to inspection of completeness of membrane filter from coefft. of redn. of gas pressure of dammed upstream side of filter. An English Abstract is enclosed.

JP05-023557 appears to be directed to a hydrophilic heat-resistant film and its manufacture. An English Abstract is enclosed.

JP05-096136 appears to be directed to a hollow-fiber membrane module and method therefor. An English Abstract is enclosed.

JP05-137977 appears to be directed to detection of separation membrane breakage for a membrane filter. An English Abstract is enclosed.

JP05-157654 appears to be directed to a leakage inspection method of a film-separation device. An English Abstract is enclosed.

JP05-161831 appears to be directed to a hollow yarn membrane module and separation method using the same. An English Abstract is enclosed.

JP05-279447 appears to be directed to a silicon-based block copolymer and membrane made thereof. An English Abstract is enclosed.

JP05-285348 appears to be directed to a vertical type hollow fiber membrane module. An English Abstract is enclosed.

JP H05-305221 appears to be directed to a membrane separation water treatment apparatus. An English Abstract is enclosed.

JP06-027215 appears to be directed to a hydrophilic porous membrane of polyvinylidene fluoride and production thereof. A computer-generated English translation is enclosed.

JP06-071120 appears to be directed to a method for detecting blinding of filter. An English Abstract is enclosed.

JP06-114240 appears to be directed to a filter. An English Abstract is enclosed.

JP06-170364 appears to be directed to a filter device using a permeation membrane. An English Abstract is enclosed.

JP06-218237 appears to be directed to a dipping type filtering device. An English Abstract is enclosed.

JP06-277469 appears to be directed to a membrane separation device. An English Abstract is enclosed.

JP06-285496 appears to be directed to hollow fiber membrane separation biological treatment and a device for organic drainage. An English Abstract is enclosed.

JP06-343837 appears to be directed to a hollow fiber membrane module. A certified English translation is enclosed.

JP07-000770 appears to be directed to a hollow-fiber membrane filter and its cleaning method. An English Abstract is enclosed.

JP07-024272 appears to be directed to a filtering method. A certified English translation is enclosed.

JP07-047247 appears to be directed to restoration of a hollow fiber membrane module. An English Abstract is enclosed.

JP07-068139 appears to be directed to a method for backwashing a hollow-fiber membrane module. An English Abstract is enclosed.

JP07-136470 appears to be directed to a hollow yarn membrane module and assembly fitted with air diffusing pipe. An English translation is enclosed.

JP07-136471 appears to be directed to a hollow yarn membrane module and assembly fitted with air diffusing pipe. An English Abstract is enclosed.

JP07-155564 appears to be directed to a hollow yarn membrane module and its production. An English Abstract is enclosed.

JP07-155758 appears to be directed to a waste water treating device. An English Abstract is enclosed.

JP07-178323 appears to be directed to a method for backwashing a ceramic membrane. An English Abstract is enclosed.

JP07-185268 appears to be directed to a hollow fiber filter membrane element and module. A certified English Translation is enclosed.

JP07-185270 appears to be directed to an immersion membrane apparatus. An English Abstract is enclosed.

JP07-185271 appears to be directed to an immersion membrane apparatus. An English translation is enclosed.

JP07-185272 appears to be directed to an immersion membrane apparatus. An English Abstract is enclosed.

JP07-236819 appears to be directed to an air bubble disperser. An English Abstract is enclosed.

JP07-251043 appears to be directed to a filtering method and filter device. An English Abstract is enclosed.

JP07-275665 appears to be directed to a hollow yarn membrane module. An English Abstract is enclosed.

JP07-289860 appears to be directed to a cleaning method of a hollow fiber membrane module. An English Abstract is enclosed.

JP07-303895 appears to be directed to a water treatment apparatus. An English Abstract is enclosed.

JP07-313973 appears to be directed to a water purifier and method for washing a porous filtration membrane in the same. An English Abstract is enclosed.

JP08-010585 appears to be directed to a condensation device using a hollow yarn membrane. An English Abstract is enclosed.

JP08-323161 appears to be directed to an immersion type membrane separator and membrane separation using the same. An English Abstract is enclosed.

JP08-332357 appears to be directed to a method and apparatus for regenerating a filter module. An English Abstract is enclosed.

JP09-000890 appears to be directed to a flat membrane separation device. An English Abstract is enclosed.

JP09-038470 appears to be directed to a filter. An English Abstract is enclosed.

JP09-072993 appears to be directed to a scrubbing method for a filter tower using hollow fiber membrane. An English Abstract is enclosed.

JP09-099227 appears to be directed to an immersion type membrane separation device. An English Abstract is enclosed.

JP09-141063 appears to be directed to a hollow fiber membrane module. An English Abstract is enclosed.

JP09-155345 appears to be directed to a filtration method for a hollow fiber membrane module. An English Abstract is enclosed.

JP09-187628 appears to be directed to a hollow fiber type module and its production. An English Abstract is enclosed.

JP09-192458 appears to be directed to a hollow yarn membrane module. An English Abstract is enclosed.

JP09-220569 appears to be directed to a solid-liquid separator. An English Abstract is enclosed.

JP09-271641 appears to be directed to production of a hollow yarn membrane module. An English Abstract is enclosed.

JP09-324067 appears to be directed to production of porous fluororesin. An English Abstract is enclosed.

JP10-024222 appears to be directed to a gas-liquid separator. An English Abstract is enclosed.

JP10-033955 appears to be directed to a membrane separation apparatus. An English Abstract is enclosed.

JP10-048466 appears to be directed to an adhesive for optical connector, and ferrule and optical connector using same. An English Abstract is enclosed.

JP10-076144 appears to be directed to a membrane separator by hollow tubular membranes. An English Abstract is enclosed.

JP10-076264 appears to be directed to sewage treatment apparatus using immersion type membrane separator. An English Abstract is enclosed.

JP10-085562 appears to be directed to a union restricting orifice and filtration device. An English Abstract is enclosed.

JP10-085565 appears to be directed to a membrane separator. An English Abstract is enclosed.

JP10-156149 appears to be directed to a hollow-fiber membrane module. An English Abstract is enclosed.

JP10-180048 appears to be directed to an immersion type membrane separator. An English Abstract is enclosed.

JP10-225685 appears to be directed to a water purifying treatment device. An English Abstract is enclosed.

JP H10-235168 appears to be directed to a filter cleaning method. An English Abstract is enclosed.

JP10-286441 appears to be directed to a cleaning method of hollow yarn membrane module and filtration device used for the method. An English Abstract is enclosed.

JP10-328538 appears to be directed to a method for cleaning a hollow yarn membrane filtration tower. An English Abstract is enclosed.

JP11-005023 appears to be directed to a hollow fiber membrane filter. An English Abstract is enclosed.

JP11-028467 appears to be directed to 4-alkylsemicarbazide as a deoxidizer. An English Abstract is enclosed.

JP11-033365 appears to be directed to a method and apparatus for two-layer centrifugal bonding of a hollow yarn membrane module. An English Abstract is enclosed.

JP11-033367 appears to be directed to a hollow yarn membrane module. An English Abstract is enclosed.

JP11-076769 appears to be directed to a cleaning method of a filter membrane module. An English Abstract is enclosed.

JP11-156166 appears to be directed to a cleaning method for a hollow fiber membrane module. An English Abstract is enclosed.

JP11-156360 appears to be directed to a method for operation of a water treatment plant. An English Abstract is enclosed.

JP11-165200 appears to be directed to a method for treating sludge. An English Abstract is enclosed.

JP11-302438 appears to be directed to a high-strength, hydrophilic, porous poly(vinylidene fluoride) film and its preparation. An English Abstract is enclosed.

JP11-319501 appears to be directed to a hollow fiber membrane module and use applications thereof. An English Abstract is enclosed.

JP11-319507 appears to be directed to a hollow fiber membrane module. An English Abstract is enclosed.

JP11-333265 appears to be directed to a membrane module. An English Abstract is enclosed.

JP2000-000439 appears to be directed to separating membrane preservation liquid and separating membrane module. An English Abstract is enclosed.

JP2000-051669 appears to be directed to a hollow fiber membrane module fitted with lower cap. An English Abstract is enclosed.

JP2000-061466 appears to be directed to a device for treating membrane-filtration waste water and its operation. An English Abstract is enclosed.

JP2000-070684 appears to be directed to backwashing of a pleated membrane filter. An English Abstract is enclosed.

JP2000-157850 appears to be directed to separating membrane preservation liquid and separating membrane module. An English Abstract is enclosed.

JP2000-185220 appears to be directed to a hollow fiber membrane module. An English Abstract is enclosed.

JP2000-189958 appears to be directed to an immersion type membrane filter device. An English Abstract is enclosed.

JP2000-233020 appears to be directed to a washing method and washing device for a blood treating device. An English Abstract is enclosed.

JP2000-237548 appears to be directed to a hollow fiber membrane type heat storage tank water purifying device. An English Abstract is enclosed.

JP2000-300968 appears to be directed to a method for operation of a membrane filter. An English Abstract is enclosed.

JP2000-317276 appears to be directed to a filtering device. An English Abstract is enclosed.

JP2000-342932 appears to be directed to a potting method for a separation membrane. An English Abstract is enclosed.

JP2000-79390 appears to be directed to purified water production. An English Abstract is enclosed.

JP2001-510396 appears to be directed to a scouring method. An English Abstract is enclosed.

JP2001-009246 appears to be directed to an immersion type flat membrane filtering device. An English Abstract is enclosed.

JP2001-079366 appears to be directed to a method for washing a membrane. An English Abstract is enclosed.

JP2001-079367 appears to be directed to a membrane separation method and device thereof. An English Abstract is enclosed.

JP2001-104760 appears to be directed to an immersion type membrane filtration apparatus and method for washing a filtration membrane. An English Abstract is enclosed.

JP2001-120963 appears to be directed to a method for washing a membrane. An English Abstract is enclosed.

JP2001-179059 appears to be directed to a filter of pathogenic microorganism. An English Abstract is enclosed.

JP2001-179060 appears to be directed to an internal pressure type membrane treatment device. An English Abstract is enclosed.

JP2001-190937 appears to be directed to water purification equipment and method of cleaning a membrane element. An English Abstract is enclosed.

JP2001-190938 appears to be directed to a method of detecting breakage of water treating membrane. An English Abstract is enclosed.

JP2001-205055 appears to be directed to a method for operating a membrane separation apparatus and apparatus therefor. An English Abstract is enclosed.

JP2002-177746 appears to be directed to a method for cleaning a membrane module and a membrane filter. An English Abstract is enclosed.

JP2002-263407 appears to be directed to a filtration system. An English Abstract is enclosed.

JP2003-047830 appears to be directed to a dipping type membrane filtration apparatus and dipping type membrane filtration method. An English Abstract is enclosed.

JP2003-053160 appears to be directed to a cleaning method for a separating membrane and membrane filter. An English Abstract is enclosed.

JP2003-062436 appears to be directed to a method for manufacturing a hollow fiber membrane module. An English Abstract is enclosed.

JP2003-135935 appears to be directed to a method for manufacturing a hollow fiber membrane module. An English Abstract is enclosed.

JP2003-190976 appears to be directed to an apparatus and method for treating wastewater. An English Abstract is enclosed.

JP2003-266072 appears to be directed to a membrane filtration method. An English Abstract is enclosed.

JP2003-275759 appears to be directed to a water treatment device. An English Abstract is enclosed.

JP2003-340250 appears to be directed to a membrane separation device. An English Abstract is enclosed.

JP2003-71254 appears to be directed to a backward washing method for a separation membrane. An English Abstract is enclosed.

JP2004-230287 appears to be directed to a method for backwashing a filtering device. An English Abstract is enclosed.

JP2004-230280 appears to be directed to a production method for a hydrophilic polyvinylidene fluoride-based resin porous membrane. A computer-generated English translation is enclosed.

JP2005-144291 appears to be directed to a method for controlling aeration quantity. An English Abstract is enclosed.

JP2005-279447 appears to be directed to a water treatment apparatus and method. An English Abstract is enclosed.

JP2007-547083 appears to be directed to cleaning in membrane filtration systems. An English Abstract of the corresponding U.S. application 11/722,411 is enclosed.

JP3302992 appears to be directed to concentration of solids in a suspension using hollow fibre membranes. An English Abstract is enclosed.

JP54-162684 appears to be directed to a preliminary treating method for a contaminated membrane. An English Abstract is enclosed.

JP55-099703 appears to be directed to preparation of an anisotropic resin magnet. An English Abstract is enclosed.

JP55-129107 appears to be directed to a washing method of selective permeable membrane. An English Abstract is enclosed.

JP55-129155 appears to be directed to production of a catalyst. An English Abstract is enclosed.

JP56-021604 appears to be directed to separation of a liquid by a semipermeable composite membrane. An English Abstract is enclosed.

JP56-118701 appears to be directed to a method and apparatus for sealing an end of hollow yarn. An English Abstract is enclosed.

JP56-121685 appears to be directed to treatment of liquid containing iron ion and manganese ion. An English Abstract is enclosed.

JP57-190697 appears to be directed to an air diffusion apparatus. An English Abstract is enclosed.

JP58-088007 appears to be directed to separation of a liquid mixture. An English Abstract is enclosed.

JP60-206412 appears to be directed to a method for repairing an end surface of hollow yarn membrane separation module. An English Abstract is enclosed.

JP60-019002 appears to be directed to a method for backwashing a hollow yarn membrane filter. An English Abstract is enclosed.

JP60-260628 appears to be directed to a thermoplastic resin molding coated with plasma polymer film. An English Abstract is enclosed.

JP61-097005 appears to be directed to manufacture of a hollow yarn membrane module. An English Abstract is enclosed.

JP61-097006 appears to be directed to a repairing method of a hollow yarn type module. An English Abstract is enclosed.

JP61-107905 appears to be directed to a filter. An English Abstract is enclosed.

JP61-167406 appears to be directed to a process for bundling and fixing a separation membrane. An English Abstract is enclosed.

JP61-167407 appears to be directed to preparation of a hollow yarn filtration membrane module. An English translation is enclosed.

JP61-171504 appears to be directed to an apparatus for centrifugal molding of a yarn bundle. An English Abstract is enclosed.

JP61-192309 appears to be directed to a hollow yarn type module. An English Abstract is enclosed.

JP61-222510 appears to be directed to a hollow yarn membrane module and its preparation. An English Abstract is enclosed.

JP61-242607 appears to be directed to preparation of a hollow yarn type module having a slit. An English Abstract is enclosed.

JP61-249505 appears to be directed to a method for preserving a fluid separator. An English Abstract is enclosed.

JP61-257203 appears to be directed to a hydrophilic porous membrane and its preparation. An English Abstract is enclosed.

JP61-263605 appears to be directed to a hollow yarn membrane device. An English Abstract is enclosed.

JP61-291007 appears to be directed to a hollow yarn type separation membrane element. An English Abstract is enclosed.

JP61-293504 appears to be directed to a separation device utilizing a hollow yarn membrane. An English Abstract is enclosed.

JP62-004408 appears to be directed to a filtration device using a hollow yarn membrane. An English Abstract is enclosed.

JP62-068828 appears to be directed to a transparent cassette liner. An English Abstract is enclosed.

JP62-114609 appears to be directed to a hollow yarn membrane filter. An English Abstract is enclosed.

JP 62-140607 appears to be directed to a method for steriley detecting leak of hollow yarn-type module. An English Abstract is enclosed.

JP62-144708 appears to be directed to a hollow yarn mold membrane module. An English Abstract is enclosed.

JP62-163708 appears to be directed to a method for backwashing a hollow yarn filter. An English Abstract is enclosed.

JP62-179540 appears to be directed to a nonadsorptive hydrophilic membrane. An English Abstract is enclosed.

JP S62-187606 is enclosed. An English Abstract is not readily available.

JP62-237908 appears to be directed to a filter module for hollow yarn type membrane separation equipment. An English Abstract is enclosed.

JP62-250908 appears to be directed to a hollow yarn type filter. An English Abstract is enclosed.

JP62-262710 appears to be directed to a hollow yarn membrane filter. An English Abstract is enclosed.

JP63-097634 appears to be directed to a hydrophilic membrane and its production. An English Abstract is enclosed.

JP63-099246 appears to be directed to a filmy raw material. An English Abstract is enclosed.

JP63-143905 appears to be directed to a hollow yarn membrane filter. A certified English Translation is enclosed.

JP63-171607 appears to be directed to a method for sealing end of hollow yarn membrane. An English Abstract is enclosed.

JP63-180254 appears to be directed to a private branch exchange. An English Abstract is enclosed.

JPS63-38884 appears to be directed to a hollow fiber module. A certified English translation is enclosed.

JP64-075542 appears to be directed to a hydrophilic porous membrane of a polyvinylidene fluoride and production thereof. An English Abstract is enclosed.

JP 2002-525197 appears to be directed to an apparatus and method for cleaning membrane filtration modules. An English abstract of corresponding WO00/18498 is enclosed.

KR2002-90967 appears to be directed to a submerged membrane coupled activated sludge system using intermittent aeration for simultaneous removal of nitrogen and phosphorus. An English Abstract is enclosed.

KR2003-003812 appears to be directed to a treatment process for livestock wastewater. An English Abstract is enclosed.

KR2003-0060625 appears to be directed to a wastewater treatment method using a membrane bioreactor with reduced sludge production. An English Abstract is enclosed.

KR2005-0063478 appears to be directed to an advanced wastewater treatment apparatus by submerged membrane. An English Abstract is enclosed.

NL 1020491C appears to be directed to measuring integrity of filter membrane comprising creating volume of gas on filtrate side, increasing pressure on feed side to create pressure drop and measuring increase in pressure on filtrate side. An English Abstract is enclosed.

NL 1021197C appears to be directed to measuring integrity of filter membrane comprising creating volume of gas on filtrate side, increasing pressure on feed side to create pressure drop and measuring increase in pressure on filtrate side. An English Abstract is enclosed.

TW 347343 appears to be directed to a solid-liquid separating filter medium for sewage, waste water, etc. with a solid-liquid separating media comprises a mono- or multi-layered filter screen which a number of filaments are closely aligned in parallel and crosswise. An English Abstract is enclosed.

WO 1993-15827 appears to be directed to a hollow yarn membrane. An English Abstract is enclosed.

WO 03053552 appears to be directed to a method for the membrane filtration of liquids. An English Abstract is enclosed.

WO 2002/26363 appears to be directed to a membrane filter unit and method for filtration. An English Abstract is enclosed.

WO 2004/078327 appears to be directed to a method of producing membranes for filtration modules which are intended, for example, for water treatment. An English Abstract is enclosed.

WO 2007/135087 appears to be directed to an aerating device for a water filtering system with immersed membranes, including a floor provided with means for injecting a gas and at least one pressure balancing system. An English Abstract is enclosed.

WO 2002-40140 appears to be directed to improvements to methods for repairing by sealing hollow fibres of membranes, in particular, ultrafiltration, nanofiltration, and hyperfiltration membranes. An English Abstract is enclosed.

The following are remarks concerning the other information cited:

PART IV: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.
2. The enclosed form be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application; and
3. The citations for the information be printed on any patent which issues from this application.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50/2762, under Order No. 2004P87070WOUS (M2019-7022US).

Dated: April 1, 2011

Respectfully submitted,

Electronic signature: /Sandra Szela Congdon/

Sandra Szela Congdon

Registration No.: 60,655

Peter C. Lando

Registration No.: 34,654

LANDO & ANASTASI LLP

Riverfront Office Park

One Main Street

Suite 1100

Cambridge, Massachusetts 02142

(617) 395-7000

Attorneys for Applicant

Docket No.: 2004P87070WOUS

Memcor Ref. No.: IPD-C337-US

LA Docket No.: M2019-7022US